Volume Title: Regularization of Business Investment

Volume Author/Editor: Universities-National Bureau

Volume Publisher: Princeton University Press/NBER

Volume ISBN: 0-87014-195-3

Volume URL: http://www.nber.org/books/univ54-1

Publication Date: 1954

Chapter Title: Government Measures to Regularize Private Investment in Other Countries than the United States

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Chapter URL: http://www.nber.org/chapters/c3032

Chapter pages in book: (p. 459 - 482)

GOVERNMENT MEASURES TO REGULARIZE PRIVATE INVESTMENT IN OTHER COUNTRIES THAN THE UNITED STATES

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INTEREST in regularization of private investment, as part of a general program of economic stabilization, seems to be more active in the United States than in other countries. The author of these notes devoted three years of intermittent study to experiments in or proposals for employment stabilization by management and labor, including government policies to stimulate such action, and prepared a report on the subject for the International Labour Office.[1] ILO correspondents in several countries collaborated in this study. Virtually no concrete experience with private employment stabilization schemes, and few proposals, were discovered. Such schemes or projects as were turned up relate to seasonal regularization more often than to cyclical regularization and are more often concerned with direct regularization of employment, sales, or output than with direct regularization of investment.

It may be that in some other countries private enterprise is less concerned with a presumed threat to its own independence and prestige from purely governmental policies for maintaining full employment without inflation; this would seem to be the case in Australia and New Zealand, for example.[2] In some countries, of

[1] It is expected that this report will be published under the title *Employment Stabilization by Industry: Possibilities and Limitations.*

[2] In Australia, for example, there appears to be little interest in regularization schemes. This lack of interest was reflected in the results of a questionnaire on management policies for regularization, arranged for the author by the Victorian Employers Federation. From 400 heterogeneous business houses, factories, and contractors canvassed, only 44 replies were received. It seems safe to assume that few of the firms that did not reply have undertaken effective measures to regularize employment and that less than one quarter of those that did had even made a study of seasonal or cyclical unemployment. However, 34 had made efforts to regularize employment, and 43 expressed an interest in receiving more information on the subject. Economic analysis and forecasting of demand were used by 15 of the larger firms. Of the various regularizing devices, reserving irregular jobs, innovation, or expansion for slack periods (21 firms) and dovetailing of different production processes (19 firms) were most used. Stockpiling methods had been developed by 14 firms, and approxi-

course, government policy does not reflect the interests of private enterprise to the extent that it does in the United States. Whatever the reason, the United States seems to be the country in which both government and management have evinced the strongest interest in regularizing private investment.

However, there has been some collaboration between government and private enterprise to regularize investment in Canada, the United Kingdom, Sweden, and Switzerland, and various proposals for further measures have been made. These measures and proposals are worth consideration in any evaluation of the possibilities and limitations of regularization of private investment.

Control of Location of Industry: The United Kingdom and Sweden

One of the more hopeful community approaches to regularization of employment or investment by private enterprise is through "dovetailing" the activities of industries with varying seasonal or cyclical patterns. The diversification necessary for dovetailing can be encouraged by government policy controlling the location of industry. Such controls have been exercised in the United Kingdom and Sweden, countries where employment is concentrated in export industries that suffer heavy unemployment when seasonal, cyclical, or secular forces bring a decline in demand for exports.

THE UNITED KINGDOM

Deliberate diversification of industry in certain communities in the United Kingdom was initiated in the "trading estate." During the Great Depression, experiments were made in locating a number of different industries in relatively small areas. These experiments, carried out by private enterprise, were known as "trading estates." Two of the outstanding examples were those at Slough, just outside London, and at Trafford Park, near Manchester. The Slough estate was developed by a private company that took over land requisitioned for war purposes during World War I, built factories, and leased them to private manufacturers. In 1948, the estate had an area of 640 acres; comprised 220 firms, with over 20,000 employees; and was specializing in light and luxury industries, such as toilet preparations, upholstery, furniture, and packaging materials. The

mately one quarter of the firms went in for simplification (9 firms), scheduling production (13 firms), persuading customers to buy more regularly (11 firms), and standardization for stockpiling (9 firms).

Trafford Park estate, which was founded in 1897, covers an area nearly twice as great as Slough and specializes in heavier industries, attracted by the Manchester ship canal and dock facilities. It provides accommodation for more than 200 firms, employing some 40,000 workers.

The interest of private enterprise in the "trading estate" form of organization arises largely from the economies involved in common use of water, gas, electricity, sewage disposal, and so forth. Incidentally, however, the greater variety of occupations provided in the relatively small area of a trading estate enhances the opportunity of employment stabilization by dovetailing.

These estates were encouraged by the government in Development Areas, first under the Special Areas Acts of 1934 and 1937 and later under the Distribution of Industries Act of 1945. Broadening the scope for employment stabilization was a major motive.[3]

The bitter experience with "depressed areas" between the wars led step by step to a comprehensive system for controlling location of industry. The main instrument of control is the Distribution of Industry Act, passed by the Churchill government in 1945. Under Part I of this act, the Board of Trade may purchase land (by compulsion if necessary) and build factories in the Development Areas. The intention was to lease the factories to private entrepreneurs, but presumably the government could operate the factories themselves if they deemed it expedient. In addition, the Board (with the consent of the Treasury) may make loans to industrial estate companies in the area, improve such basic services as transport, power, housing, and health facilities, and reclaim land. The Treasury may also make grants or loans to assist established industries in the area. Part II of the Act requires industrialists contemplating construction of buildings more than 10,000 square feet in area to notify the Board of Trade and supply particulars.

The Board of Trade has more positive control over location of new plants through its power to grant or withhold building permits for factories. Applications for licenses are reviewed with the over-all program for redistribution of industry in mind. Some indirect control of location of industry can be exercised also through the Borrowing (Control and Guarantees) Act of 1946 (an extension of wartime legislation of the Churchill government), under which the government regulates access to the capital market and can consider

[3] See United Kingdom Central Office of Information, *Quote* No. T.20, 6.7.48.

redistribution of industry in establishing priorities in the right to float new issues.

Finally, government control of industrial location is provided through the Town and Country Planning Act of 1947. Under this act, all local authorities are required to prepare Development Plans for the districts under their jurisdiction, which would include plans for new factories and for provision of the community facilities that a new factory may make necessary. These Plans are subject to the approval of the Minister of Town and Country Planning, who is thus in a position to exercise control over location of industry in conformity with the government's general policy for distribution of industry. Moreover, the Act provides that applications to local planning authorities for permits to construct industrial buildings in excess of 5,000 square feet in area must be accompanied by a Board of Trade certificate stating that the "development in question can be carried out consistently with the proper distribution of industry." Where the situation requires the development of a brand new community, the New Towns Act may be evoked.

While the high level of effective demand for labor in the economy as a whole masks the effect on employment of government industrial location policy, such evidence as there is indicates that the policy has been effective. Of 780 new factories or extensions to old ones approved between the end of the war and the end of January 1946, 360 were in the Development Areas. The new industries were much more diversified than those existing in the same areas before the war and less dependent upon export markets. Such products as chemicals, clothing, textiles, gloves, boots, food, drink, tobacco, print, toys, domestic appliances, paper and printing, and light and heavy engineering goods are now being manufactured in regions that formerly relied for employment on the coal, iron and steel, tin plate, and shipbuilding industries. In a statement to the House of Commons on May 3, 1946, the Minister of Labour stated that relocation schemes had been approved that would ultimately provide work for an additional 67,000 workers in the Northeast, 89,500 in southern Wales and Monmouth, 48,700 in Scotland, and 11,500 in West Cumberland. Unemployment among insured workers in the Development Areas fell from 410,000 in 1937 to 100,000 in October 1948; numbers employed were 400,000 greater. Of these latter, 105,000 represent postwar increases in employment, and 56,600 were employed in government munitions factories turned over to private enterprise since the war. The President of the Board of

Trade estimated that when the 443 new factories completed in the Development Areas since the war are working at capacity, and the 740 additional factories planned are in operation, the additional jobs provided by the government's location policy will be double the October 1948 figure.

SWEDEN

Sweden also has a positive policy for control of location of industry, with regularization of employment as one of the objectives. The latter part of the nineteenth century saw a movement toward geographical concentration of industry in Sweden, with many areas becoming dependent on one or a few major industries. Such communities were vulnerable to serious unemployment whenever the markets for these industries shrank. The mechanization of agriculture also led to unemployment in rural areas. The Commission for Postwar Economic Planning suggested attacking these twin problems by controlling the location of industry, and their report aroused public interest in location policy.[4] The manpower shortage during the war and immediate postwar years recommended the policy to industry as a partial solution of the labor supply problem. In 1946, the Swedish Industrial Association combined with the Swedish Employers' Association to form an Industrial Production Council, which cooperates with the government's Labor Marketing Board in the selection of locations for new factories.

The government influences location of industry in three ways. First, it provides advice and technical assistance to industries choosing new factory sites. Industry has advised with government mainly to locate sites where the supply of necessary labor skills was most abundant but also to assure availability of transport, public utilities, and markets. In giving such assistance, the Labor Market Board makes use of the Industrial Production Council and the County Labor Boards.

Second, the government controls location through its policy of assisting new enterprises. When a community faced with an employment problem requests the government to establish a new industry there, the government investigates its possibilities and informs industrial organizations like the Industrial Production Council. The government also informs individual industries that it knows to be seeking new factory sites. The Labor Market Board arranges con-

[4] *Finansde partementet: Utredoringar argaende economisk efterkrigs plancring No. VII*, Stockholm, SOU, 1944, no. 57.

ferences among interested parties, forms committees to discuss the problem, and otherwise facilitates the establishment of a new industry in the communities concerned.

Third, as in the United Kingdom, the government licenses new industrial construction. Applications for a license are first received by the County Labor Boards, which after appraisal make recommendations to the Labor Market Board. The latter submits recommendations to the Industrial Commission, which considers the application in the light of national economic policy regarding employment stabilization, economic development, the balance of payments, and national defense.

At the time of writing, industrial location policy is being reconsidered in Sweden in terms of a 1951 report by the Royal Investigation Committee No. 6. This committee studied problems of location for three years in terms of the objective of reversing the trend toward concentration of people and industries in a few large cities. It proposes subsidies if necessary to attract industry to certain areas, for example, low rates on publicly owned transport facilities.

Policies of this sort can be successful in countries like Sweden and England where distances are short and where climate, topography, and access to power and natural resources do not differ enormously from one region to another. It is doubtful whether they are equally suitable in countries like Australia, Canada, and the United States, where distances between major markets, between sources of power and raw materials and markets, etc. are very great indeed, and where regional differences in geography, climate, and abundance of power and resources are very marked. In such countries, diversification within each region may be far too costly in use of resources and loss of geographic specialization.

Furthermore, a reshuffling of industry locations may regularize one area at the expense of another in the short run. When the new industrial location pattern has been established, however, the greater diversification in small areas increases the potential effectiveness of employment regularization measures.

A new industrial location pattern might help to regularize cyclical *employment*, but it could not regularize *real income*. Behind the "trading estate" approach is the idea that when employment falls in *all* industries in a community, the workers can take to the land. However, the whole advance in standards of living since the breakdown of the feudal manor has been the result of two simultaneous and virtually inseparable developments: improvements in technique

booms, the cycle might simply be reversed; but varying the rates of depreciation allowed could hardly affect net profits enough to offset other factors operative over the business cycle. The probable net result of such a policy would be some alleviation of the intensity of economic fluctuations.

ACCELERATED DEPRECIATION IN TRANSITION PERIOD

A first step toward the introduction of variable depreciation allowances was taken by the Canadian government in November 1944 as part of a general program to encourage private investment in the transition period. It included the following measures:

1. Permission to write off current expenditures for research in the year of expenditure, and capital expenditures for research over a three-year period;
2. Extension of the privilege of writing back or carrying forward losses, to allow business firms to approach more nearly to an *average* profit basis for taxation purposes;
3. Permission to assign as security the refundable portion of the excess profits tax in cases where the funds obtained would be used for capital expansion for postwar business giving desired employment;
4. Granting a flat tax rate for the first year of operation of newly established companies, thus partially exempting them from the full taxation levied under the Excess Profits Tax Act;
5. Tax concessions to encourage exploration and drilling for oil, and exploration and prospecting for base metals and strategic minerals;
6. Removal of the war exchange tax and customs duties on certain equipment and machinery items, particularly farm implements; and
7. Special depreciation on new investment in industrial plant and equipment of a type that appeared to have both a war and postwar purpose.[6]

The provisions of the special depreciation allowances were as follows: "For projects completed between November 10, 1944, and March 31, 1949, entrepreneurs were given the option of a range of depreciation rates varying between double and one-half of ordinary rates up to 80 per cent of the cost of new investment in buildings,

[6] Statutory authority also exists for allowing half of investment and maintenance expenditures to be charged against the income of a previous fiscal period, through order in council. See Dept. of Reconstruction and Supply, *Encouragement to Industrial Expansion in Canada*, Ottawa: King's Printer, 1948, pp. 17-18.

and increasing specialization. To offer workers nothing better than reversion to family self-sufficiency is to revert to feudal times. The advantages of division of labor would be lost in depression in what is really "disguised" unemployment. Instability would be shifted to agricultural (and other) industries outside the trading estates. In depression periods, workers on trading estates would meet more of their needs by their own work, and buy less on the market with money income derived from specialized factory work. Employment in other fields would therefore fall.

Variable Depreciation Allowances: Canada

One proposal for government policy to induce countercyclical investment by private enterprise, which has received support from private enterprise itself, is countercyclical variation of depreciation allowed for tax purposes. The English firm of Lever Brothers strongly recommends this policy:

"But the powers of the Government to influence the trade cycle by means of its budget policy are not confined to the effect taxation can have on the distribution of income. By allowing varying rates of depreciation on capital expenditure according to the period when it was undertaken, or by not allowing any depreciation, or even taxing capital expenditure, in periods of boom expansion, whilst allowing capital expenditure incurred in periods of depression to be offset against income, a more direct influence could be exercised on the degree of capital investment.

"It may be asked, will not a policy of discouraging capital investment during periods of boom deter technical research and invention? There are two sides to that question—what may be lost in this way on the swings of the trade cycle will be gained on the roundabouts. Though retarded during booms the progress of invention under these proposals will be accelerated during slumps, and the ground covered by technical research and invention will not be less for the pace of their advance being uniform.

"Apart from the means indicated above, the Government—and other public bodies—can control their own capital expenditure, extending it in times of depression and restraining it in times of boom."[5]

Of course, if such a device were *too* successful, and private enterprise were encouraged to invest heavily in depression and lightly in

[5] Lever Brothers and Unilever Limited, *The Problem of Unemployment*, London, 1943, p. 25.

machinery and equipment. This meant that the taxpayer could choose for the 'taxation life' of the asset varying depreciation rates until 80 per cent of the asset had been written off. Normal depreciation rates were allowed for the balance. To illustrate: under normal depreciation allowances, expenditures for machinery and equipment would be written off in ten years, but under special depreciation it would be written off in six years, 20 per cent each in the first four years and 10 per cent each in the last two years. For buildings, assuming a normal depreciation rate of 5 per cent, special depreciation would make it possible to write off the asset in twelve years (eight years at 10 per cent and four years at 5 per cent) instead of twenty years as under the regular depreciation allowances."[7] Thus under this special depreciation scheme, sometimes called "double depreciation," companies were permitted to postpone taxation on a portion of their profits when profits and taxes were high, and pay them in a later period when profits and tax rates would presumably be lower.

The manner in which the provision worked may be illustrated by an example: "Take three companies each having an income before depreciation of $100,000 in 1945 and each having established standard profits of $50,000: The first company having no investment in a new capital project would pay a gross tax (income and excess profits tax) of $65,000, including a refundable tax portion of $8,333, or a net tax of $56,667. The second company making an investment of $250,000, of which $100,000 was for a building and $150,000 for machinery and equipment, would pay, after allowance of normal depreciation rates on new investment, a gross tax of $45,000 or a net tax of $40,667, after deducting the refundable tax portion of $4,333. The third company making the same investment expenditures and being permitted to charge double depreciation would pay a gross tax of $25,000, including a refundable tax portion of $333 or a net tax of $24,667 (for details see Schedule A). The third com-

[7] The authority for this provision was section 6, subsection (1) (n) (ii) of the *Income War Tax Act*, R.S.C. 1927, c.97, section 6 (1) as amended in August 1946 by 10 Geo. VI, c.55, section 5 (1) (n) (ii) (see App. B. p. 99); *Order in Council* P.C. 8640, November 10, 1944, which defined the period in which the investment must be made, and amplified the type of capital expenditures and industries covered and the extent and conditions attached to the granting of special depreciation privileges; and *Order in Council* P.C. 1449, April 16, 1946, which extended the time within which the investment project must be completed and applications for special depreciation must be submitted to the Department of Reconstruction and Supply. Dept. of Reconstruction and Supply, *op.cit.*, p. 22.

pany would thus be paying $16,000 less in taxes than the second company, and $32,000 less than the first."[8]

When originally introduced, at the peak of the industrial war effort, the provisions were designed to enable industries with high priority ratings for materials and labor "to proceed immediately with such expansion as has both a war and postwar purpose," and to assist other industries that were "planning postwar expansion, conversion, or modernization to prepare their plans without delay so as to be ready to commence work on their plant and equipment as soon as materials and labor are available."[9] In administering the provisions, the following bases for the approval of special depreciation privileges developed: increased efficiency, expanded exports, added employment, improved working conditions, aiding particular areas, and strengthening particular industries. In general, three major groups of industries were encouraged to expand in the immediate transition period: first, war industries converting to production of peacetime goods; second, basic industries in need of modernization or expansion and whose output was urgently needed for capital expansion, exports, or manufacturing; third, other industries supplementary to industrial expansion, such as the construction industry, and industries important for long-term economic development, such as commercial shipping. The provisions were later extended to the construction of rental housing, and to ships acquired from the War Assets Corporation, or built in Canadian shipyards between April 1, 1947 and December 31, 1949. Altogether, approvals had been given for investment projects amounting to $1,392,000,000 up to the end of 1947. Of this amount, $845,000,000 were approved in 1947 alone. The special depreciation privileges for reconversion expired on March 31, 1949. However, under Order in Council P.C. 816 of February 1951, provision was made for accelerated depreciation of investments for defense and related developmental purposes, where the risk of substantially reduced value in peacetime was such as to deter investment in these fields. In addition, deductions for expenditures on oil, mineral, and gas exploration were extended in the 1949 and 1950 budgets.

DEFERRED DEPRECIATION

In the 1951 budget, on the other hand, the principle of *postponed* depreciation was introduced, except for certain types of investment

[8] Dept. of Reconstruction and Supply, *op.cit.*, p. 23.
[9] *ibid.*, p. 24.

defined in the Order in Council and others subject to exemption upon certification by the Minister of Trade and Commerce, i.e., the right to charge capital costs against income for tax purposes was *postponed* for four years.[10] Properties acquired before Budget Day (April 10, 1951), new housing, assets of very short life, and certain categories of public utility and transport equipment were exempted in the Order itself. Certificates of eligibility for capital cost allowances may be issued by the Minister for property acquired to fulfill a defense contract or subcontract, or for a purpose contributing to defense, in basic industries such as farming, fishing, and forestry, and in certain public utilities. As a counterpart to the new order, use of accelerated depreciation was limited to investments in urgently needed defense industries that would not be undertaken by private enterprise without special inducement.[11]

At the end of November 1951, at a time when inflationary pressure showed signs of abatement, the range of investment exempted from deferred depreciation provisions was expanded somewhat, under Order in Council P.C. 6384. Capital cost allowances were permitted for three additional types of asset: new buildings built under a contract concluded prior to April 11, 1951; buildings completed before that date that the taxpayer was bound to acquire under a contract undertaken prior to that date; and machinery and equipment acquired under a contract concluded prior to that date.

VARIABLE DEPRECIATION AS A STABILIZER

When first introduced, variable depreciation allowances were aimed more at control of resource allocation than at the regularization of aggregate investment. Later, however, the regularization aspects of the scheme assumed greater importance in government policy statements. In a statement to the House of Commons on December 19, 1951,[12] the Minister of Trade and Commerce, D. C. Howe, referred

[10] Ordinarily an annual deduction for capital cost of assets is permitted under Canadian law, whether or not the asset is actually being used or is actually depreciating. The rates of depreciation allowed range from 4 per cent to 100 per cent, according to the type of asset. Since 1949 a diminishing balance system of amortization has replaced the straight-line system.

[11] In his article on "Deferred Depreciation—A Canadian Anti-Inflationary Measure," *Journal of Finance*, May 1952, Mitchell Sharp of the Department of Trade and Commerce points out that the United Kingdom has introduced a similar measure, as of April 6, 1952, suspending the "initial allowances" of 40 per cent of the cost of plant and equipment and 10 per cent of the cost of industrial buildings for the first year of use.

[12] *Hansard*, pp. 2191-2192.

to the deferred capital cost allowances as one of "the various measures we have undertaken to curb inflationary pressures." Relief from postponed depreciation, and permission to accelerate depreciation, would, of course, be a counter-deflationary measure. The device of variable depreciation allowances belongs to the category of selective controls; it influences the total volume of investment, but its impact is concentrated upon particular categories of investment that the government wishes to encourage or discourage. It is discriminatory, but deliberately so, in the same manner as qualitative credit controls.[13]

Judging from the figures presented by Mr. Howe (shown in table 1 below), the scheme has had the desired effect in recent years.

TABLE 1
NEW INVESTMENT AFFECTED AND NOT AFFECTED BY DEFERRED CAPITAL COST ALLOWANCES, CANADA
1951-1952

Category	*Millions of current dollars*		*Per cent change 1951-1952*	
	1951	*1952*	*Current dollars*	*Constant dollars*
1. Total private and public investment (categories 2 and 3)	$4,581	$5,003	+9	+3
2. Investment by bodies not under income tax regulations	1,875	2,079	+11	+5
3. Investment subject to income tax regulations (categories 4 and 5)	2,706	2,924	+8	+2
4. Investment not affected by deferred capital cost allowances	1,590	1,721	+8	+2
5. Investment affected by deferred capital cost allowances (categories 6 and 7)	1,116	1,203	+7	+2
6. Investment eligible for capital cost allowances, subject to the issuance of a certificate of eligibility	543	729	+34	+27
7. Investment not eligible for capital cost allowances	573	474	−17	−22

Source: Estimates based on returns from the 1952 survey of investment intentions reported in statement of the Minister of Defense Production and Trade and Commerce, in House of Commons, March 14, 1952, *Hansard*, pp. 436-444.

[13] In his budget speech introducing deferred depreciation, the Minister of Finance, Douglas Abbott, stated that it was designed primarily to discourage investment of a low priority type seeking quick profit. The way in which the

Between 1951 and 1952, when all investment subject to income tax regulations increased 8 per cent, investment eligible for capital cost allowances increased 34 per cent and investment not eligible for such allowances fell 17 per cent.[14] Of course, this period was one of high-level prosperity with mild inflationary pressure. It is doubtful whether so puny a device as changes in depreciation allowances could prevent investment from increasing in a violent boom, and it is extremely unlikely that it could prevent investment from falling in a downswing. However, variable depreciation allowances might help to reduce the amplitude of fluctuations in private investment and thus alleviate fluctuations in income and employment. At worst, it is a policy that would ease the administrative task of government in maintaining full employment without inflation.

Three arguments might be made against the scheme. First, it adds another factor of uncertainty to the business picture and so complicates the problem of efficient long-run planning by private enterprise. Second, in addition to the deliberate discrimination in favor of, or against, particular categories of investment in accordance with declared government policy, the scheme may involve unintended discrimination within those categories, among firms with different ratios of capital to total cost, different rates of technological change, and the like. Third, it requires a certain amount of administrative discretion and thus accords some degree of control of business activities to government officials.

Against the first argument, it could be contended with equal force that the system really reduces business uncertainty; entrepreneurs can be assured that unforeseen changes in aggregate demand will be

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Order has been administered is suggested by the following figures showing the distribution of certificates issued up to December 1951:

	Number	*Amount (millions)*
Subsection 5—defense	114	$ 61.7
Subsection 6—basic industries	433	301.7
Subsection 8—purchase of existing business	28	5.4
Subsection 9—commitments as of April 10, 1951	13	0.6
Total	588	$369.4

Source: Mitchell Sharp, *op.cit.*

[14] The figures for 1951 are still more striking: capital expenditures not eligible for capital cost allowances were 8 per cent below 1950, those eligible without certificate rose 2 per cent, and those eligible with a certificate rose 83 per cent. Statement of Mr. Howe, December 19, 1951, *Hansard, op.cit.* However, since the provisions were in force for only eight months of 1951, it would not be safe to generalize freely from these figures.

at least partially offset by changes in the share of profits that must be paid in taxes. As the Canadian scheme is administered, it would not complicate long-range planning very much, since the deferred capital cost provisions are not applied to projects that promise long-run benefit to the economy. To reduce uncertainty, firms may apply for a certificate of eligibility before undertaking a project, and, whatever the answer, they can proceed with knowledge of the tax implications of their undertaking. Of course, the provisions may be changed—but so may any tax provisions.

The second argument is valid, although every effort is made, in administering the Canadian system, to reduce unwanted discrimination to a minimum. For example, the government publishes in the *Canada Gazette*, about once a quarter, the names of firms to which certificates of eligibility have been granted, and the specific section of the regulation under which certificates were issued. Thus any firm seeing that a competitor has received a certificate may apply for one for himself. Of course, such care does not eliminate discrimination of the kind that results from the simple fact that different firms operate under different conditions, so that success or failure in getting a certificate means more to some firms than to others. If the allocation of resources had been optimal before the measure was introduced, the disturbance to this allocation implicit in variable depreciation allowances might be cause for concern; but few countries in the world have an optimal allocation of resources, and it is impossible to foretell whether devices of this kind will make the allocation worse or better. In any case, this sort of unintended discrimination is inherent in almost any government policy, whatever it may be. It could certainly be maintained that by concentrating on devices of this sort to check inflation, the Canadian government has introduced less unintended discrimination than is involved in the vast array of direct controls of prices, wages, and allocation introduced in the United States during the Korean War. Perhaps because it is grateful to the government for sparing it from widespread direct controls, the Canadian business community seems to have accepted the system of variable depreciation allowances without much protest.

The Canadian government has tried to reduce administrative discretion to a minimum by spelling out the regulations as much as possible in the Order itself. Still, a substantial area of administrative discretion undoubtedly remains. The author is not among those that believe that private enterprise economies can be regularized by

legislative or "automatic" devices alone, nor is he one of those much more frightened by government bureaucrats than by the bureaucrats of big business, big labor, and big agriculture; but to some, the discretion that government officials must exercise in administering variable depreciation allowances may seem a strong argument against the scheme.

There is perhaps some doubt as to whether Lever Brothers may not be too optimistic regarding the effects of variable depreciation on technological progress. The rate of *invention*—the *discovery* of new techniques, new resources, or new products—depends too much on noneconomic factors to be greatly affected by changes in taxes on profits. The rate of *innovation*—the *introduction* of new techniques, new resources, or new products—may be affected; the increase in tax liability in prosperous times may delay innovation. Will the reduction of tax liability accelerate it? It cannot accelerate innovation unless invention is also accelerated—which is unlikely—or unless there is a backlog of inventions whose introduction has been postponed. But building up a reserve of inventions means denying their fruits to the public for the time being. The plan would therefore tend to slow down the rate of economic progress in prosperity. Considering the nature of "linked advance,"[15] it is quite possible that postponement of innovation in prosperity may retard economic development over the cycle as a whole.

Tax Exemptions for Investment Reserves: Sweden and Switzerland

The Swedish government uses a system of tax rebates to encourage regularization of employment by private enterprise. Corporations and cooperative associations are permitted to deduct from taxable income amounts allocated to special reserve funds for future investment. The funds may be earmarked for construction, for accumulation of stocks (inventories), for purchase of machinery and equipment, or for mining exploration and research. The form in which the reserves are held is left to the discretion of the firm; they are reserves only in an accounting sense. The government reserves the right to determine the time at which, the extent to which, and the purpose for which, reserves so deducted may be used. If the reserves are used without government approval, the entire amount invested is subject to tax at the rates applicable in the year when the funds

[15] See B. S. Keirstead, *The Theory of Economic Change*, Toronto: Macmillan, 1948, chap. 8.

are withdrawn. After ten years (or fifteen if the government grants an extension) they become taxable anyhow, and the whole amount of the reserve is compounded at 2 per cent per year for each year sums are held. If withdrawn with government approval, no depreciation may be charged against the assets acquired with the funds. The amount of deductions is limited to 20 per cent of the annual profit of an enterprise, except that in the case of unusually large gains in a particular year, a deduction of 35 per cent is permitted. However, enterprises utilizing the deduction privilege are also entitled to deduct certain costs of investment, which otherwise must be depreciated over several years, or which in some cases may not otherwise be deductible at all. Control of the reserves is in the hands of the Royal Employment Board, but this board includes in its membership representatives of workers' and employers' organizations, and plans for use of the reserve funds are made in cooperation with the enterprises concerned.

Quantitatively, these reserves do not seem to be of great significance. According to Shelton and Ohlin, at the end of 1950 the total amount was 214 million kronor, some 0.7 per cent of the Swedish gross national product.[16] About 180 million kronor were earmarked for construction, 33 million for stocks (inventories), and 2 million for mining development.

Ohlin and Shelton rightly criticize the Swedish scheme for limiting the permitted period of accumulation of reserves to ten years. This limitation is one of several details of Swedish fiscal policy that suggest overemphasis of a presumed ten-year cycle. In many countries now, full employment has already prevailed for some twelve years, and there is no solid reason to expect that it will not continue for some time still. On the other hand, these authors seem to underestimate the strength of the incentive provided by the scheme. They contend that "there is no significant tax reduction offered under the Swedish provision, since investments financed from the funds are not subject to such subsequent depreciation as would otherwise have been allowed." But if taxes on business profits are progressive, and if reserves are accumulated in years of high profit and used in years of low profit, the tax saving may be substantial. Shelton and Ohlin also criticize the scheme for introducing a "discouraging element of uncertainty," because future tax rates are unknown, and the trend in the past has been upwards; only if tax rates are expected

[16] J. P. Shelton and Goran Ohlin, "A Swedish Tax Provision for Stabilizing Business Investment," *American Economic Review*, June 1952, p. 379.

to fluctuate with the cycle will the system provide much incentive. But surely a government sophisticated enough to introduce such a provision can be expected with confidence to reduce tax rates in a downswing, or at the very least not to increase them. In any case, other governments following suit could commit themselves in advance to cyclical variation in tax rates. Similarly, the Swedish government or any other could easily adopt the policy of granting extensions of the holding period in the event of a prolonged boom. There would then be no reason for projecting "the past trend of increasing tax rates" into a period of deflationary pressure, when estimating the rate of tax likely to apply when the reserves were used.

A more serious weakness of the Swedish provision is that the "reserves" need not be liquid reserves at all; there is apparently nothing to prevent the so-called "reserves" from being invested currently in plant and equipment, if a firm believes that capital for further investment will somehow become available in a less buoyant period, when the government permits "use" of the reserves. To maximize counter-inflationary as well as counter-deflationary effects of the provision, it would be necessary to require that the reserves be held in liquid form.

A somewhat simpler approach has been developed in Switzerland. Rebates of taxes on profits are permitted for any part of profits used for investment purposes. To have a regularizing effect, of course, this privilege would have to be available only in periods of unemployment and would have to be rescinded in periods of high employment. Also, in order to avoid discrimination in favor of large, entrenched firms whose profits are large in volume, the privilege of deducting investment outlays from income for tax purposes should be extended to partnerships and individuals as well as to corporations, should cover all investment no matter how financed, and should include investment in housing, and perhaps in other highly durable consumers' goods, as well as investment in plant, equipment, and inventories.

As an alternative to the Swedish and Swiss schemes, the government might allow a limited proportion of profits to go completely tax-free in periods of inflation, provided the untaxed profits were used to purchase special nonnegotiable and noninterest-bearing bonds, cashable in depression at a time designated by the government and for certain stipulated purposes only: purchase of capital equipment, inventories, or housing; payment of wage bonuses or

supplements to social security benefits, or outlays on workers' housing, recreation facilities, or other amenities; and—possibly—maintenance of dividends.

The reason for exempting from tax only profits used to buy these special bonds, rather than all profits put to "reserve," is that what shows up in business accounts as "reserves" may not represent current withdrawals from the income stream at all. Additions to reserves may be offset on the asset side of the balance sheet by current purchases of raw materials or even of equipment. By insisting on the purchase of bonds as prerequisite to tax remission, the government is assured that an equal amount of profits will be withdrawn from the income stream, with the desired anti-inflationary effect.[17] The limitation on the use of proceeds from cashing the bonds in depression is, of course, to assure that the proceeds will be used to increase expenditures, income, and employment at that time. It is precisely because a large share of dividend payments may be saved, even in depression, that some question might be raised about the advisability of permitting dividend maintenance as one of the uses to which proceeds of encashment might be used. In order to be certain that the proceeds were in fact used in the manner stipulated, it might be necessary for the government to make the actual outlays, for purposes designated by the owner of the securities. The bonds would have to be nonnegotiable, and cashable only through the Treasury, to assure that the bonds would not be converted into cash for current spending while inflation still threatened.[18]

[17] The government would, of course, have to hold the proceeds from sale of such bonds as idle balances—such as deposits in the central bank with 100 per cent reserves against them—if the measure is to have a completely anti-inflationary effect. If the proceeds were used to retire government debt held outside the banks, there might be some leakage of the funds back into the expenditure stream; however, since bondholders presumably want to hold liquid securities rather than spend money, most of the cash received in exchange for matured obligations would probably be dissipated in bidding up the prices of securities, the supply of which would be diminished by retirement of public debt. There would be an increase in the velocity of the financial circulation, but little increase in the velocity of circulation against goods and services. If the proceeds from sale of the special bonds were used to retire bank-held debt, bank reserves would be increased, and with an active demand for credit the net result might be inflationary.

[18] Whoever bought the bonds on the open market would have to reduce his spending to the amount of his purchases, but there would be no assurance that the purchaser would increase his net saving by the amount of his purchases. He might simply buy these bonds rather than some other security; and if the bonds were negotiable, he might be able to borrow against them for current

There would be no justification for paying interest, since the tax-free privilege would be equivalent to a rate of interest equal to the marginal tax rate on the profits used, which might be 10, 20, or even 30 per cent, depending on the tax structure of the country, and the rate of profits earned by the firm. There seems to be no reason why the same principle might not be applied to income taxes as well. However, in order to avoid discrimination in favor of the individuals or firms with highest incomes (and so subject to the highest rates of tax), there would have to be a ceiling on the amount or share of income that could be so invested.

Variable Rates of Profits Taxes

Variable depreciation allowances are really, of course, a device for altering the effective rate of tax on business profits. If tax policy is to be used to regularize private investment, there are more effective ways of using it. Judging from recent econometric studies, the main factors influencing the rate of private investment are changes in the level of profits and in the stock of capital (plant, equipment, inventories, and housing). Tax policy cannot directly alter the size of the stock of capital, but it can affect the level of profits available for distribution as dividends or allocation to reserves.

Unfortunately, the use of tax policy to maintain stable investment presents grave complications. According to the same econometric studies, private investment reacts unfavorably, not only to an increase in the stock of capital and to a decline in the level of profits, but also to a decline in the *rate of increase* in profits.[19] In an expanding economy, with positive net investment, the stock of capital will be increasing. It is desirable that it should be; no country yet has all the capital it needs. But to offset the unfavorable effects on business expectations of a growing stock of capital, *an increasing rate of increase* in profits may be necessary. If profits began to flatten out after a boom, maintaining the former rate of increase would mean reduction of taxes by *greater and greater amounts* in each successive income period. Yet if the scheme were introduced in the early stages

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spending. Even if he increased his net savings by the amount of his purchases, the spending he gave up might be less inflationary than the spending undertaken by the seller. By making the bonds nonnegotiable, the government would have control of both the timing and the form of expenditure financed by cashing the bonds.

[19] See, for example, Lawrence Klein, *Economic Fluctuations in the United States: 1921-1941*, Wiley, 1950; and Colin Clark, "A System of Equations Explaining the U.S. Trade Cycle, 1921 to 1941," *Econometrica*, April 1949.

of recovery, tax increases intended to prevent profits from increasing at a rate that could not be maintained might keep private investment too low, both in terms of employment creation and in terms of achieving an optimum rate of capital accumulation (a rate equating marginal social net product of capital with the communal rate of time preference).

A measure that has been suggested for avoiding the unfavorable effect of business taxation on investment, particularly investment in the riskier enterprises, is the averaging of profits over several years for tax purposes. Several countries, including Australia, Canada, the United Kingdom, and the United States, already have such provisions. It might be desirable to extend the averaging period to the whole period of the Juglar cycle, permitting averaging of profits over nine or ten years for tax purposes. The principle might also be extended to personal incomes. The effect of averaging profits or income over several years for tax purposes is to reduce the amount of tax paid over the whole cycle by individuals or firms with highly variable incomes. It thus tends to increase effort and investment in fields of enterprise where the fluctuations in income are relatively severe. These fields include new enterprises, in which investment has particularly stimulating effects. The result of averaging should therefore be to increase the total volume of investment and income over the Juglar cycle as a whole. It is consequently a device for reducing *chronic* unemployment, rather than for reducing seasonal or cyclical instability.

Insurance of Inventories: British and Swedish Proposals

Where cost of storage prohibits stockpiling by private enterprise, the government could meet the problem very simply by undertaking to offset fluctuations in private demand by its own purchases and sales, and by storing raw materials in order to permit a steady flow to producers. Several of the working parties of the United Kingdom have, indeed, made the proposal that the government should perform this function.[20] Such devices would make a substantial contri-

[20] The Heavy Clothing Working Party recommends that government place its own orders for clothing during slack seasons, which implies that the government would hold the clothing bought until needed: "In the meantime, there are certain palliatives which might well be tried. For instance, the total volume of production required to meet orders from government departments (particularly the Ministry of Supply and the Admiralty), local authorities and public service and Utility Corporations (for example, Railway Companies) is very considerable. At present some of these contracts are placed evenly throughout

bution to cyclical regularization as well; inventory accumulation and reduction are important aspects of fluctuations in private investment as a whole.[21] Several economists have favored national or even international stockpiling of storable commodities, to permit more stable prices and production.[22] The proposals are worth careful consideration, although there is some danger that they might introduce an undesirable degree of inflexibility into production, with consequent failure of production to adapt itself to changes in demand and cost. However, government stockpiling is a form of public investment and therefore belongs to the category of policies that aims at regularizing employment by direct intervention in the spending stream, rather than to the category under consideration here.

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the year whilst others are placed mainly or solely in the busy period. The placing of these orders with clothing manufacturers during the slack period of the year would contribute in some degree to the reduction of overtime and casual employment in the other months and substitute for it more stable employment when most needed. Action along these lines might well be taken by the authorities concerned as part of the government's declared policy of full employment.

"We realize, of course, that there are difficulties in carrying out this suggestion in full but we are convinced that at least something could be done. The requirements of the various authorities in respect of many classes of goods, e.g., uniforms both military and civil, can be estimated with a fair degree of accuracy well in advance of the date when delivery is required. It would help if contracts could be placed very early so as to allow the manufacturer to do the work at a convenient time. Similarly, a more permanent type of contract would enable the manufacturer to 'make' in slack periods for later delivery, being sure of his eventual market." Working Party Reports, *Heavy Clothing*, p. 27.

The Furniture Working Party expresses a similar view: "The marked seasonal fluctuations in furniture manufacture arise for the most part from deeply ingrained habits of furniture purchasers to which we refer in more detail in Chapter III. Nonetheless, these fluctuations constitute a considerable evil and a source of inefficient production, and small though the mitigation may be, we believe that the government should take special action to secure that its own orders for furniture are placed for production in the slack periods. Other large purchasers should also be encouraged to do the same, and we recommend that the B.F.M.F.A. should approach large institutional and corporate users, especially local authorities. Its exhibition policy should also be designed to secure as great a levelling of the demand throughout the year as possible." Working Party Reports, *Furniture*, p. 36.

[21] See Lloyd A. Metzler, "The Nature and Stability of Inventory Cycles," *Review of Economic Statistics*, August 1941; "Three Lags in the Circular Flow of Income," *Income, Employment, and Public Policy: Essays in Honor of Alvin Hansen*, Norton, 1948.

[22] See especially Benjamin Graham, *Storage and Stability*, McGraw-Hill, 1937; Frank D. Graham, "Full Employment without Public Debt, without Taxation, without Public Works, and without Inflation," *Planning and Paying for Full Employment*, ed. A. P. Lerner and F. D. Graham, Princeton University Press, 1946.

A closely related proposal, which has been under consideration in Sweden, does come under the heading of policies designed to encourage self-regularization by private enterprise: government insurance of stockpiles against loss through deterioration or falling prices. Under this scheme, the actual accumulation and reduction of inventories are the responsibilities of private entrepreneurs, but the government shares in the risk. Clearly, such an insurance system would greatly facilitate the use of stockpiling to offset seasonal instability and would make more feasible the use of countercyclical fluctuations in inventories to counteract, at least in part, cyclical variations in other kinds of private investment.

Of course, government insurance of stockpiles is good policy only where stockpiling is itself good policy. If the government were to guarantee against loss in inventories of consumers' goods subject to frequent or sudden changes in style, or in inventories of equipment subject to unpredictable obsolescence, let alone inventories of such products as tailor-made steel shapes, the program could become quite expensive. The net cost to the government would reflect a genuine social loss; private firms should not be encouraged to produce worthless goods, any more than government agencies should be encouraged to undertake "boondoggles," so long as there is any hope of keeping men and resources both fully and productively employed.

Encouraging Research

Governments may also encourage regularization in the long run by permitting outlays for economic and technical research on regularization devices to be deducted from profits for tax purposes, and by carrying on such research itself. There are some types of instability, mainly seasonal, that can be overcome by increasing the storability of raw materials or final products; research may yield fruitful results in this connection. Research into factory organization, production methods, labor training techniques, location of industry, and so on may reveal hitherto unseen possibilities for dovetailing complementary production processes, increasing the occupational and geographic mobility of labor, and so on.

Blocking Discharge of Employees: Italy

Italy offers some negative evidence: to persuade management to regularize employment, positive inducements must be offered; it is not enough merely to prohibit or delay the discharge of employees

by decree. Under Decree 788 of November 9, 1945, the Italian government laid down regulations for the blocking of discharges. This decree remained in force until September 30, 1946. During this period, Italy had one of the most serious unemployment problems in the world. No doubt Italy faced especially acute economic difficulties at that time, but at the least the Italian experience demonstrates that unemployment cannot be prevented by issuing decrees forbidding the discharge of employees.

Conclusions

Most of the measures and proposals discussed in this chapter fall into one or another of three categories: offering tax concessions to firms that undertake measures to regularize investment or employment; offsetting changes in demand by changes in tax liability on profits; and sharing risks of countercyclical investment. All of these approaches are useful; none of them is likely to succeed in regularizing private investment. Indeed, none of them is likely to be as effective as a guarantee that whatever fluctuations in private spending remain, after all reasonable measures to regularize it have been undertaken, will be offset by inverse variations in government spending, in such a manner as to approximate full employment without inflation. If entrepreneurs could rest assured that no violent swings in income and employment would be permitted to take place, many of the reasons for fluctuations in private investment would also disappear. Replacement waves built up by concentrated expansion and improvement of plant, equipment, and housing would gradually damp down. Cycles of the "multiplier-accelerator" variety would be small in amplitude. Innovation could not be expected to proceed continuously, but the cumulative effects would be less strong if entrepreneurs had confidence in the essential stability of the economy. But while the biggest contribution of government to the regularization of private investment would probably come from offsetting such fluctuations in private investment as still take place, there is no good reason for eschewing measures of the kind discussed in this paper, designed to regularize private investment directly.